Proceedings of the United States National Museum

SMITHSONIAN INSTITUTION • WASHINGTON, D.C.

Volume 125 1968 Number 3654

Neotropical Microlepidoptera, XVI

A New Genus and Two New Species of Oecophoridae (Lepidoptera)

By J. F. Gates Clarke

SMITHSONIAN INSTITUTION PRESS

Proceedings of
the United States
National Museum

SMITHSONIAN INSTITUTION • WASHINGTON, D.C.

Volume 125 1968 Number 3654

Neotropical Microlepidoptera, XVI [1]

A New Genus and Two New Species of Oecophoridae (Lepidoptera)

By J. F. Gates Clarke

Senior Entomologist, Department of Entomology

The first species described herein was received from Dr. F. Luis Gallego M., Chief, Departmento de Entomología, Facultad de Agronomía e Instituto Forestal, Universidad Nacional, Medellín, Colombia, who states that the larvae of the species damage apple by boring in the twigs. A search of the literature and museum collections failed to reveal any described form that approaches this species. The generic affinities are with the Australian *Sphyrelata* Meyrick.

The second species described herein is noteworthy because it is the only species of the family Oecophoridae—a family exhibiting an enormous development of species in the Neotropical region—recorded from the island of Dominica, British West Indies. The specimens were collected by my colleagues, my wife, and me during the Archbold-Bredin-Smithsonian Biological Survey of Dominica.

The photographs for this paper were made by Mr. Victor Krantz, staff photographer. The drawings of the genitalia of *Gonionota insulana* and those of the head, palpus, wing venation, and leg of *Maesara*

[1] See list at end of paper.

gallegoi were made by Mrs. Elsie H. Froeschner; the genitalia of *M. gallegoi* were drawn by Mr. André del Campo Pizzini.

Maesara, new genus

Type-species: *Maesara gallegoi*, new species.

Antenna about two-thirds the length of forewing, rather stout, not ciliated; scape with pecten. Labial palpus upturned, second segment slightly roughened beneath; third segment acute, in male much shorter than second; in female nearly as long as second. Maxillary palpus short. Tongue well developed, heavily scaled. Head roughened, sidetufts spreading; ocelli absent. Thorax with posterior crest. Posterior tibia heavily clothed with moderately long hairlike scales. Forewing smooth, termen oblique; costal and dorsal edge nearly parallel in female, in male costa strongly arched, 12 veins; 1b furcate, 2 from near angle of cell; 2, 3, and 4 about equidistant; 6 parallel to 7; 7 and 8 long stalked, 7 to apex; 9 approximate to base of stalk of 7 and 8; 11 from near basal third of cell. Hindwing with 8 veins; 2 from well before angle of cell; 3 and 4 short stalked, from angle of cell, 5, 6, and 7 about equidistant.

Male genitalia: Uncus present. Gnathos present, divided. Aedeagus unarmed.

Female genitalia: Signa present.

Maesara is related very closely to the Australian *Sphyrelata* Meyrick and keys to it in Meyrick's key to the genera of Oecophoridae ("Genera Insectorum," 1922, fasc. 180). *Maesara* differs from *Sphyrelata* by the smooth, somewhat shorter antenna, the absence of ocelli, the basad origin of vein 11 of the forewing and the short-stalked veins 3 and 4 of the hindwing.

Maesara gallegoi, new species

FIGURES 1, 2; PLATE 1

Alar expanse 18–36 mm.

Labial palpus light ochraceous buff mottled with brown and fuscous. Antenna ochraceous buff basally shading to chestnut brown distad; extreme apex ochraceous buff; scape ochraceous buff shaded with fuscous. Head ochraceous buff somewhat infuscated; side tufts mixed with blackish fuscous. Thorax ochraceous buff, the ground color obscured by chestnut brown and blackish fuscous. Forewing ground color umber brown; costa broadly edged with chestnut brown, this band of color narrowing toward apex; veins in costal half of wing emphasized by chestnut brown; in cell, at one-third, an ochraceous buff spot mixed with a few black scales; on fold, slightly beyond one-third, a similar spot (absent in some specimens); at end of cell a more conspicuous, well-defined, ochraceous buff spot; ochraceous buff

scales irregularly and sparsely scattered over surface of wing; cilia composed of alternating ochraceous buff and fuscous groups producing a spotted appearance. Hindwing grayish fuscous, thinly scaled basad; cilia grayish fuscous mixed subapically with ochraceous buff. Foreleg ochraceous buff; femur and tibia strongly overlaid fuscous; tarsal segments irregularly marked fuscous; midleg ochraceous buff; femur mottled fuscous on outer side; tibia almost wholly overlaid fuscous on outer side except distally; tarsal segments with ochraceous buff

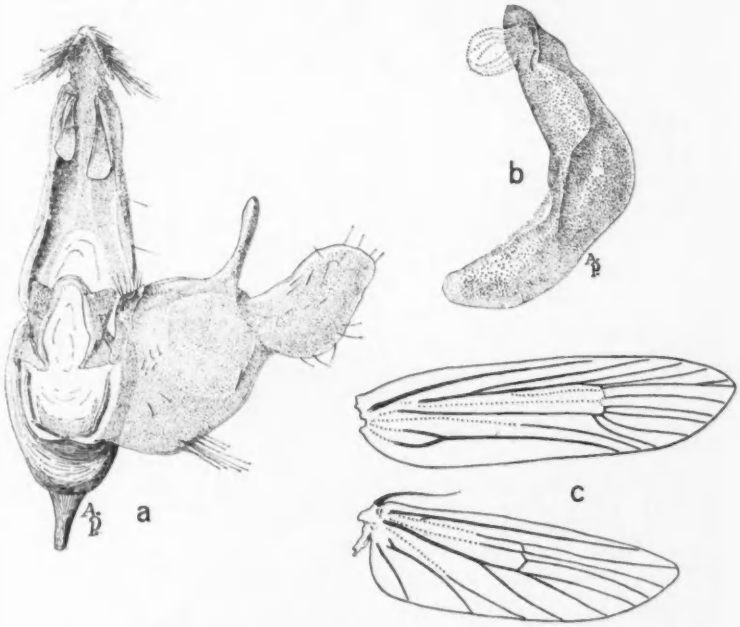


FIGURE 1.—*Maesara gallegoi*, new species: *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus; *c*, venation of right wings.

reduced to narrow annulations. Hindleg fuscous except ochraceous buff distally on femur and tibia, and tarsal annulations. Abdomen blackish fuscous with a slightly paler lateral stripe; anal tuft ochraceous buff.

Male genitalia slides JFGC nos. 10582, 11703. Harpe very broad basally, constricted beyond middle, then dilated into a suboval cucullus; costa with a long, curved, digitate projection before constriction, and at base a thick pointed process (triangular in cross section). Gnathos divided, consisting of two long elements flattened

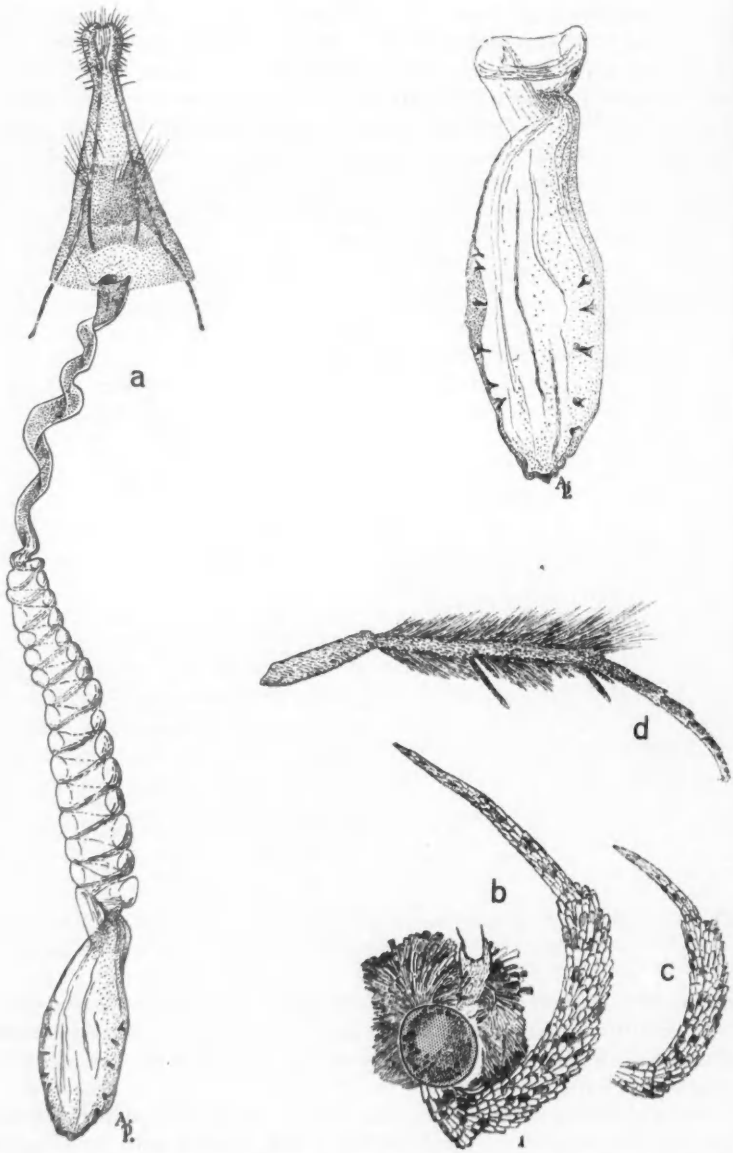
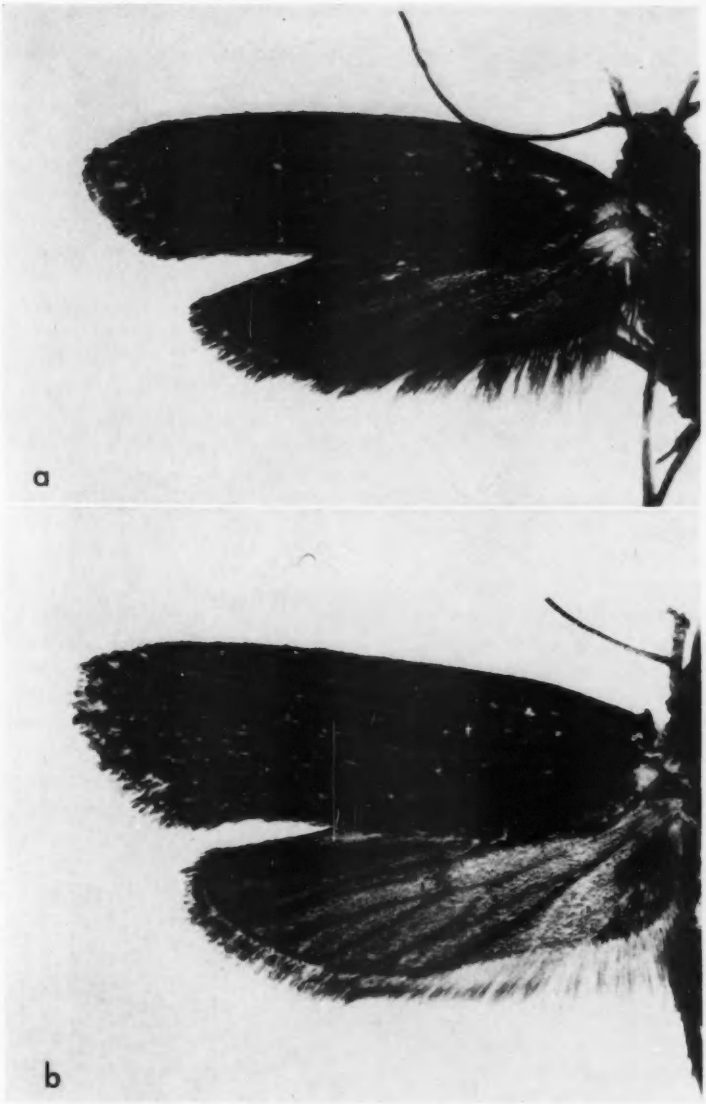
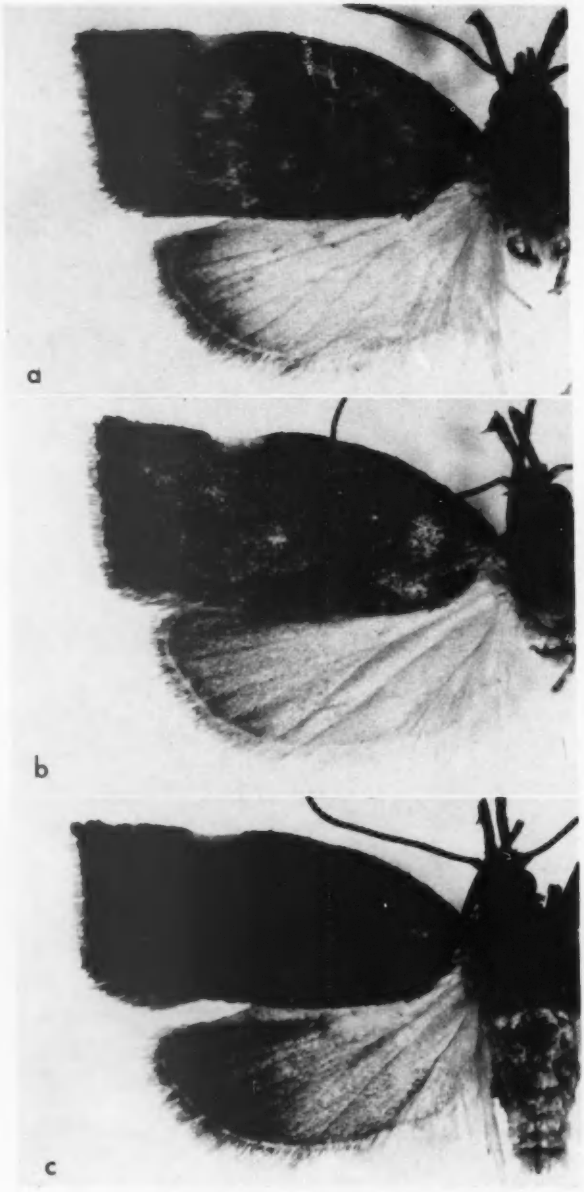


FIGURE 2.—*Maesara gallegoi*, new species: *a*, ventral view of female genitalia with bursa copulatrix at right side; *b*, lateral aspect of head of female showing labial palpus; *c*, labial palpus of male; *d*, hindleg.



Maesara gallegoi, new species: *a*, male (holotype); *b*, female, left wings.



Gonionota insulana, new species: *a*, male (holotype), left wings; *b*, female (light form), left wings; *c*, female (dark form), left wings.

and dilated distally. Uncus triangular, hood shaped, clothed with stiff setae. Vinculum produced into a point. Tegumen narrow, somewhat longer than harpe. Anellus consisting of a narrow ventral band and a strongly developed, broad dorsal tube; laterally, on each edge of the tube a pyramidal process with a granular surface. Aedeagus curved, swollen at middle, unarmed.

Female genitalia slides JFGC nos. 10939, 11704. Ostium transverse, oval. Antrum strongly sclerotized. Ductus bursae long, spiraled; posterior third lined with a narrow, longitudinal scobinate band. Bursa copulatrix membranous. Signa 11, in two longitudinal rows of small thorns; lamella antevaginalis and lamella postvaginalis membranous.

Holotype: U.S. National Museum No. 69716.

Type-locality: Colombia (Antioquia) Rionegro.

Distribution: Of this species, Dr. Gallego states (in litt.): "In several municipalities of Oriente Antioqueno and other departments of Caldas, Boyaca and Cundinamarca (2200–2600 m.)."

Food plant: *Pyrus malus* L. (*manzano*). Larva boring in the twigs.

Described from the holotype male, 7 ♂♂ and 18 ♀♀ paratypes all from the same locality (September and October dates). Paratypes will be placed in the U.S. National Museum; in the Departmento de Entomología, Facultad de Agronomía e Instituto Forestal, Universidad Nacional, Medellín, Colombia; and in the British Museum (Natural History).

Presumably, this moth is a native Neotropical species; it is interesting that it should be found damaging apple, an introduced plant, while its native host is still unknown. The habits and economic significance of this species will be published by Dr. Gallego and his associates.

It gives me very great pleasure to dedicate this species to Dr. F. Luis Gallego M., dean of South American entomology.

Gonionota Zeller

Gonionota insulana, new species

FIGURE 3; PLATE 2

Alar expanse 17–19 mm.

Labial palpus orange yellow irrorate with scarlet and brown scales; apex of third segment ocherous white. Antenna light brown suffused reddish in some examples; scape orange yellow irrorate with scarlet. Head orange yellow with scattered scarlet scales along sides and on frons. Thorax orange yellow mixed with scarlet and brown scales. Forewing ground color orange yellow; costa to three-fifths russet; extreme edge narrowly black interrupted by a white streak at two-fifths; on costa, beyond three-fifths an orange yellow spot with extreme

costal edge white; from basal third to costal three-fifths an outwardly oblique, russet band, confluent with dark costal shade, terminating in point, the latter confluent with an outwardly curved series of black

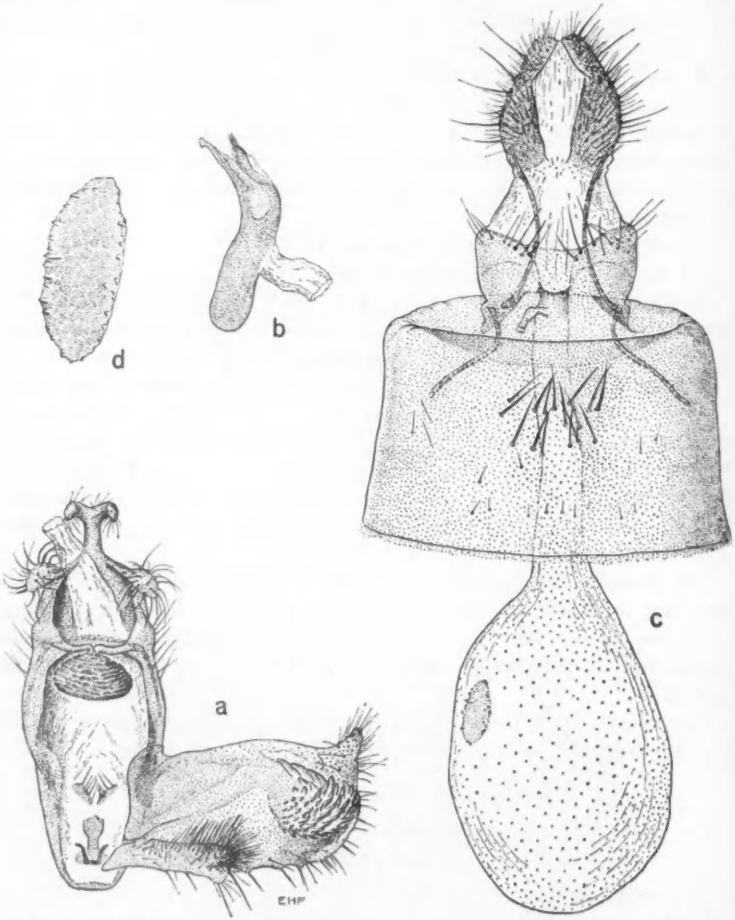


FIGURE 3.—*Gonionota insulana*, new species: *a*, ventral view of male genitalia with left harpe and aedeagus removed; *b*, aedeagus; *c*, ventral view of female genitalia; *d*, signum, enlarged.

spots; terminal area of forewing russet; discal stigmata, two, blackish, at one-third in cell and at end of cell; irregular lines and blotches scarlet; cilia yellow to tornus then fuscous; underside with scarlet and brown and much white scaling. Hindwing buff shaded with brown

and russet toward edges; cilia russet and brown terminally, buff toward anal angle. Foreleg white overlaid with light brown and scarlet on outer side; midleg white; femur with scattered brown and scarlet scales on outer side; tibia with scarlet dash distally on outer side; tarsus shaded with scarlet distally; hindleg white with scattered brown and scarlet scales; tarsus suffused reddish distally. Abdomen ocherous white dorsally, somewhat more yellowish toward middle; ventrally irrorate with ocherous white, scarlet, and fuscous scales.

Male genitalia slide JFGC no. 11681. Harpe subrectangular; cucullus pointed dorsally; at about middle of cucullus a large cluster of heavy spines; sacculus a prominent ridge from base to about middle of harpe. Gnathos an oval, spined knob. Uncus divided into two divergent arms from a central stalk. Vinculum narrow, truncated. Tegumen as long as harpe. Anellus a very narrow plate, dilated distally. Aedeagus stout, curved, with a cluster of bristles distad.

Female genitalia slides JFGC nos. 11678, 11679, 11680. Ostium small, slitlike, membranous. Genital plate membranous. Antrum narrowly and very lightly sclerotized. Inception of ductus seminalis from anterior edge of antrum. Ductus bursae membranous. Bursa copulatrix membranous with a small, slightly sclerotized signum, dentate along the edges.

Holotype: U.S. National Museum No. 69717.

Type-locality: Dominica, .5 mile east of Pont Casse (13 January 1965; J. F. G. and Thelma M. Clarke).

Distribution: Dominica.

Food plant: Unknown.

Described from the holotype male and 7 ♀♀ paratypes as follows: 2 ♀♀, Springfield Est., 20–26 July 1963; 2 ♀♀, .4 mile east of Pont Casse, 23 June 1964, 21 May 1964; ♀, 1.6 miles west of Pont Casse, 16 June 1964 (all collected by O. S. Flint); ♀, 1 mile east of Pont Casse, 1800 feet, 29 January 1965 (J. F. G. and Thelma M. Clarke); ♀, Pont Casse, 7 June 1965 (Don R. Davis).

Only eight specimens of *insulana* came to hand during many nights of collecting over a two-year span. Moreover, all were collected within a radius of three miles although the island was covered, during the two-year period, by many collectors. At best the species is rare.

This is an unusually interesting species for two reasons: First, it is the only representative of the family Oecophoridae and the sole representative of the genus *Gonionota* on the island. Both the family and the genus are highly developed in the neotropics yet only the one species has succeeded in establishing itself on Dominica. Second, it is unusually variable, a characteristic seldom found in the genus *Gonionota*. In plate 2*a* I have illustrated the only male available that shows a clearly defined pattern and contrasting coloring. Plate 2*b* illustrates

a female with a less well-defined pattern and suffused coloring. In the female shown in plate 2*c* practically the whole pattern has disappeared, and the whole upper surface of the wing is overlaid with light brownish scales. Careful examination with a microscope reveals the same markings, though greatly subdued, that are found in the other specimens.

In general, the male of *insulana* appears similar to that of *G. comastis* (Meyrick), but it is much smaller and lacks the conspicuous, white discal spot of forewing of that species. The evenly colored female (pl. 2*c*) resembles that of *G. isastra* (Meyrick) in color, but it is little more than half the size of that species. In the male genitalia, both *isastra* and *comastis* lack the large disc of coarse spines found in *insulana*. Since the females of *isastra* and *comastis* are unknown, no comparison of the genitalia can be made.

Neotropical Microlepidoptera Series in the *Proceedings*

(Papers are prepared with the aid of National Science Foundation Grants)

paper	*author*	*subject*	*year*	*volume*	*number*
I, II	Clarke	Blastodacnidae and Aegeriidae	1962	113	3457
III	Clarke	*Gonionota melobaphes* and relatives	1964	115	3480
IV	Duckworth	A new genus of Stenomidae	1964	116	3497
V	Obraztsov	The tortricid genus *Proeulia*	1964	116	3501
VI	Clarke	The genera *Orsotricha* and *Palinorsa*	1964	116	3502
VII	Obraztsov	The tortricid genus *Pseudomeritastis*	1966	118	3527
VIII	Duckworth	The stenomid genus *Falculina*	1966	118	3531
IX	Obraztsov	The tortricid genus *Pseudatteria*	1966	118	3535
X	Duckworth	Taxa erroneously placed in Stenomidae	1966	119	3540
XI	Obraztsov	The tortricid genus *Idolatteria*	1966	119	3543
XII	Duckworth	The stenomid genus *Lethata*	1967	122	3585
XIII	Duckworth	The stenomid genus *Lozotoma*	1967	122	3590
XIV	Clarke	Chilean Microlepidoptera described by Blanchard	1967	122	3591
XV	Duckworth	The stenomid genus *Thioscelis*	1967	123	3620

U.S. GOVERNMENT PRINTING OFFICE: 1968

loring. In
n has dis-
rlaid with
pe reveals
nd in the

hat of *G.*
nspicuous,
colored fe-
r, but it is
genitalia,
s found in
known, no

ngs
n Grants)

ume	*number*
13	3457
15	3480
16	3497
16	3501
16	3502
18	3527
18	3531
18	3535
19	3540
19	3543
22	3585
22	3590
22	3591
23	3620

FFICE: 1968